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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Roberto Edmundo Pazmino Sanchez

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EXAMINER

LAUX, JESSICA L

ART UNIT

PAPER NUMBER

3635

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,194	<b>Applicant(s)</b> SANCHEZ, ROBERTO EDMUNDO PAZMINO	
	<b>Examiner</b> JESSICA LAUX	<b>Art Unit</b> 3635	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3,9 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,9,11-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3,9,11-15,18-20,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopez (4372092) in view of Balla-Goddard et al. (5743056).**

Claims 1, 20, 22. Lopez discloses a modular building system comprising:

(a) multiple portable pre-cast modules placed horizontally or vertically adjacent to each other, wherein each of the multiple modules comprise:

(i) structural steel mesh (16);

(ii) cementitious mortar encasing the structural steel mesh (as disclosed they are concrete panels); and

(b) metal plate connectors (18); and

(c) welds (13) between the metal plate connectors and the structural steel mesh thereby connecting adjacent modules (Col. 4, line 60-65).

Lopez does not disclose tapered indentations.

Balla-Goddard discloses precast building panels where the panels have tapered indentations for connecting adjacent modules.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the precast panels of Lopez to have the tapered indentations located along edges of the module (as disclosed by Balla-Goddard) and thereby exposing portions of the structural steel mesh; wherein the adjacent modules are aligned with each other, the metal plate connectors and the welds are situated in the aligned tapered indentations of the adjacent modules, and the adjacent modules form a wall as such a modification would provide for a secure and easy installation/connection of adjacent modules because the tapered indentations provide a better and easier connection.

Claim 9. The modular building system of claim 1, further comprising:

(e) reinforcing steel mesh (generally 13; where Lopez discloses the use of multiple reinforcing meshes – Col. 5, lines 25+); and

(f) at least one of (i) solder and (ii) ties connecting the reinforcing steel mesh and the structural steel mesh (Col. 5, lines 25+).

Claim 11. The modular building system of claim 1, wherein the module is one of: (i) a square, (ii) a rectangle, (iii) a triangle, and (iv) a trapezoid (as disclosed and seen in the figures).

Claims 12-13. Lopez in view of Balla-Goddard disclose the modular building system of claim 1 but are silent regarding the specific design parameters of the structural steel mesh. However, it would have been obvious to one having ordinary skill

Art Unit: 3635

in the art at the time the invention was made to select a structural steel mesh having a yield stress between 4000 and 6000 kt/cm<sup>2</sup> or a diameter of 4mm and a spacing of 100mm x 50mm x 100mm x 100mm, to achieve the desired strength to meet the loads imposed on the panel, since it has been held to be within the general skill of a worker in the art to select a known material (in the instant case the desired steel bars) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 14, 15, 19: Lopez in view of Balla-Goddard discloses the modular building system of claim 1, but does not expressly disclose dimensions of the module. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to design the module to have an overall dimension of 1500mm x 250mm or 750mm x 250mm and a thickness of 40mm to accommodate the desired function of the building while meeting the strength and load requirements imposed on the panel, since it has been held to be within the general skill of a worker in the art to select a certain design or size on the basis of its suitability for the intended use as a matter of obvious design choice.

Claim 18. Lopez in view of Ball-Goddard disclose the modular building system as in claim 1 above, but do not expressly disclose the claimed cementitious mixture. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a cementitious material design to achieve the desired strength to meet the loads imposed on the panel, since it has been held to be within the general skill of a worker in the art to select a known material (in the instant case the

cementitious material) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

**Claims 2, 16-17, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopez (4372092) in view of Balla-Goddard et al. (5743056) and further in view of Jazzar (7121061).**

Claim 2, 23. Lopez in view of Balla-Goddard discloses the modular building system of claim 1, but do not disclose that each module includes a 90 degree appendix on opposite edges of the module.

Jazzar discloses a precast building panel having a 90 degree appendix on opposite edges of the module.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the panel design of Lopez in view of Balla-Goddard to have a 90 degree vertical appendix on opposite edges as the appendix provides additional strength to the panel. Further it would have been well within the general knowledge and common sense of one with ordinary skill in the art to pursue or substitute known panel designs to accommodate various design parameters and strength requirements.

Regarding claims 16, 17: Lopez in view of Balla-Goddard and further in view of Jazzar discloses the modular building system of 2 as above, but does not expressly disclose the dimensions of each 90 degree appendix. However, applicant has not disclosed that the claimed dimensions provide an advantage or solve a stated problem. Furthermore it appears that the appendices of Jazzar and applicants claimed appendices would perform the same function of strengthening the module and providing

a secure connection means equally well. Further it is noted that the modules of Jazzar and applicant's claimed invention are for the purposes of building structures, and therefore would be subject to size limitations and requirements based on the design and function of the building, and that these limitations would vary depending upon the loads subjected to the modules. Therefore it appears to be a mere matter of design choice that would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the appendices of the prior art to have the claimed dimensions.

**Claim is rejected under 35 U.S.C. 103(a) as being unpatentable over Lopez (4372092) in view of Balla-Goddard et al. (5743056) and further in view of Jolliffe (4930677).**

Claim 3. Lopez in view of Balla-Goddard discloses the modular building system of claim 1, but do not disclose an epoxy resin on the edges of the module in contact with an adjacent module.

Jolliffe discloses precast building panels having an epoxy resin on the edges of adjacent modules.

In view of Jolliffe it would have been obvious to one of ordinary skill in the art to modify the panel of Lopez in view of Balla-Goddard to have an epoxy resin on the edges of adjacent panels to provide weather proofing the to the structure.

**Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lopez (4372092) in view of Balla-Goddard et al. (5743056) and further in view of Jazzar (7121061) and further in view of Jolliffe (4930677).**

Claim 21. Lopez in view of Ball-Goddard and further in view of Jazzar and Jolliffie disclose the modular building system as above but do not expressly disclose that the modules have a cementitious mortar filling the voids in the between the steel mesh, metal plate and welds.

However, Jolliffie does disclose the use of caulking at the joints of adjacent panels. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the prior art to have a cementitious mortar at the joints for protection of the integrity of the elements.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./  
Supervisory Patent Examiner, Art Unit 3635

/J. L./  
Examiner, Art Unit 3635